DOCUMENT RESUME

ED 185 609 CS 502 869

AUTHOR Newcombe, P. Judson
TITLE Some Influences on Teachers and Teaching in 2030: Projections, Predictions, and a Scenario.
PUB DATE Nov 79
NOTE 20p.: Paper presented at the Annual Meeting of the Speech Communication Association (65th, San Antonio, TX, November 10-13, 1979).

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Computer Managed Instruction: *Educational Change; Educational Television: *Futures (of Society); *Speech Communication: Teacher Education: Teacher Improvement: Teacher Role: *Television Teachers

ABSTRACT

Predominant in a list of the problems and predictions for education in general and speech communication education in particular for the next 50 years are both the changing form and function of the educator. A scenario of education in 2030 includes a nationwide teacher agreement that results in the release of students from mandatory attendance at schools except for extended study sessions, teacher supervision of study sessions based on computerized placement, professional teachers' organizations evaluating and recommending commercial education packages, a three-day work week for teachers, the role of "TV teacher" as a permanent part of national educational systems, and the establishment of commercial education firms that produce packaged television programs. In addition, communication teacher education curricula include units or thought transference, a major factor in the expansion of teachers' cognitive capabilities. (AEA)

**********
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
**********

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED185609

# SOME INFLUENCES ON TEACHERS AND TEACHING IN 2030:

# PROJECTIONS, PREDICTIONS, AND A SCENARIO

A Paper Presented at the Annual Convention of the

Speech Communication Association

San Antonio, Texas

November, 1979

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
P. Judson Newcombe

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

P. Judson Newcombe

University of South Florida
Tampa, Florida 33620

CS502869

One hundred years ago most Americans travelled by foot or by horse. Thomas Alva Edison had obtained a patent for his "talking machine" in 1878. On New Year's Eve of 1879 he threw a switch in Menlo Park, New Jersey to demonstrate his new, incandescent streetlights were viable alternatives to existing gas and oil lights. Electricity still was a cause for wonder and a challenge to human imagination. Even telephones were still a novelty.

When the Michigan Supreme Court decided in 1872-1873 that public taxation to support high schools was proper, public education beyond the elementary school level gained support and prestige that eventually would lead to an acceptance of compulsory public education for America's citizens.[1] By 1879 the elective system in American high schools was becoming so popular that courses in elocution and oratory, the forefathers of our current speech and communication courses, were gaining academic stature in our nation's educational system.

Forty years ago, in 1939, the automobile had replaced the horse as our primary mode of travel in the United States. Airplanes still were novel, fast, but expensive means for travelling great distances. On April 30, 1939 the magnificent New York World's Fair opened. Visitors to the fair experienced a breathtaking glimpse of the world of the future where inexpensive, air-conditioned cars would travel one hundred miles an hour over seven lane highways, free of traffic jams and congestion because

cars would be controlled by suggestions from towers along the highways. Highrise buildings, sleek and clean, would rise graciously above beautiful parks. Sunshine and clean air would bathe the buildings every day. Some homes might even have a new invention, television. However, a Harvard professor was quick to point out that television probably would never be very practical because it required continuous attention in a semi-darkened room.[2] The World's Fair avoided any mention of our current international crises, civil feuds, pollution, and inflation. The idealic world of the future also did not include World War II, Korea, or Viet Nam!

What have we learned from the past? For one thing, we know that some very important people made some very silly predictions about the future.[3] We also know that even the wisest scholars and scientists did not foresee all of the current accomplishments of mankind. Perhaps we are even ready to accept Clarke's Law:

> When a distinguished but elderly scientist states that something is possible, he is almost certainly right. When he states that something is impossible, he is very probably wrong.[4]

Although our ability to imagine may be conditioned by our knowledge of the past and our perceptions of the present, it must not . . . in fact, it <u>cannot</u> be limited by these factors. We may be able to say certain things cannot be accomplished, based on our current knowledge, level of awareness, and technology, but we need to avoid blanket pronouncements that certain things can <u>never</u> be accomplished. Just as ignorance of the past is folly; ignorance of the possibilities of the future may be fatal! I agree completely with Arthur C. Clarke's forecast:

> Anything that is theoretically possible will be achieved in practice, no matter what the technical difficulties, if it is desired greatly enough. It is no argument against any project to say: "The idea's fantastic!"[5]

How, then, should we approach the task of predicting what the world of 2030 will be like? Should we be as optimistic and idealistic as the designers of the New York World's Fair were? Perhaps a recent survey of fifty world citizens will be useful at this point. Those individuals were asked to identify the primary influences on the world through the year 2001. They agreed upon these: accelerating change; increased complexity; decreasing dependence on hydrocarbons; reevaluation of the "growth is good" concept; continued crowding and hunger; Third World pressures for equity and a new economic order; continuing international difficulties; considerations of welfare, debt, and freedom; reevaluation of expensive "privileges" and extravagant habits; future-directed planning; and the use of work and leisure and their relative importance in life.[6]

Teige, Harman, and Schwartz include some of these same influences in their forty-one "critical problems" for the world of the future in their article, "The Problem of Critical Problem Selection."[7] The president of the World Future Society enumerates other problems that must be resolved: overpopulation, extending the human life span, terrorism, preventing World War III, health costs, decline of the family, control of the oceans, intergroup tensions, restrictions on imports, water shortages, choosing the sex of one's children, burdens of government regulation, reducing crime, a sense of community, space industrialization, energy, information overload, credentials for work, and educational reform.[8]

Having enumerated these major problems, he predicts that if recent trends continue, the world of 2000 will differ from our current world by being less organized around family and kin; longer lived; more mobile, unified, standardized, affluent, and leisured.[9]

What are the implications of these problems and predictions for education in general, and speech communication educators in particular? What should our prospective teachers and our current students learn to do and to be in order to remain productive, practical, successful educators in the twenty-first century? Will the study of human communication remain an important facet of academic study during formal education?

Recently, one writer predicted that American education will be influenced by increasing numbers of women entering the work force and staying longer, during which "there will be a cycle in which education promotes work, work promotes a decline in fertility, and declining fertility increases the problems of elementary and secondary schools."[10] The writer indicated that immigration now accounts for one-fourth of our net population growth, a factor that may create increased numbers of drop-outs because of language difficulties and acculturation problems.[11] With just these two considerations we can see that America's period of introspection and reevaluation is not yet over. They carry with them the issues of equal pay for equal work, the right to life, the right to work, mandatory bilingual education, and provisions for the poor. They continue to challenge the American educator to defend the ideals of our nation's founders as more than "empty rhetoric" . . . or "dreams of disgruntled old men." I predict that those ideals will haunt us, taunt and drive us

as a profession for as long as America subscribes to the basic definitions of a democracy. In 2030 speech or communication educators, whatever they are calling themselves then, will be faced with reinterpreting the hopes and dreams of 1776 . . . perhaps throughout the universe. Fifty years from now, whether the American educator is black or white, male or female, straight or gay, blond or gray, that individual will be invested with the obligation to move other human beings forward to their potentials for genius and compassion, using the most constructive means available.

At a meeting in Jakarta, Indonesia in 1978, representatives of world teaching organizations addressed themselves to the major issues facing future educators. Among the issues were: relationship between education and employment, preparation for the transition from school to work and life in society, life long learning, educational expansion vs. economic restraints, teacher education's obligation for producing teachers who can help students handle an increasingly complex society, unity of the teaching profession and relations with other groups, national and international concern for human rights, development of curricula and examination systems in relation to societal needs of tomorrow, relationship between school and higher education or other post-school activities, and the school as part of the educational system in which non-formal education plays an increasingly important part.[12] Since this report contains the viewpoints of educators from developing, as well as developed nations, it serves as a useful summary of current and future concerns.

Eight years earlier Herbert A. Simon of Carnegie Institute of Technology attempted to examine education in its current setting. He concluded:

> What people most need to know is how to continue to acquire new knowledge and revise old knowledge throughout their careers . . . It is easy to exaggerate the vocational or professional value of what is taught in schools, and especially in universities, except possibly in some very specific professional curricula (and probably only for small fragments of these). "Education" is such an obviously good thing that we over-estimate the skill requirements of most jobs and the time required to obtain those skills on the job.13

Speech communication educators today are aware of the demands for efficiency, accountability, and time study in their programs. Most of us have lived through periods when the cry for greater productivity led to mass lectures, televised lessons, and carefully coordinated extravaganzas meant to entice the "sampler" and enthrall the uncommitted. Education was not and is not very efficient. That is not to imply that education will never be very efficient.

Education and educators are about to be shoved into an era when many comfortable axioms of teaching and learning will be reevaluated and revised. This educational reformation will occur quickly in our country, provided a major financial or military confrontation does not occur. This reformation will redesign the learning environment and redefine the teacher. The impetus for this reformation will come from two dissimilar areas of research: electronics, and genetics and human physiology.

As a result of discoveries in electronics, education will become cheaper and more practical if it moves out of schools for large segments of time and into the home or a neighborhood center. Eventually the home telephone and television will be

linked with mini-computers, optical scanners, voice analyzers and voice typewriters, 3-D holography, light sensitive cathode tubes, complex logic circuits, videotape recorders, and photo copying/information storage machines to create relatively inexpensive learning networks within school districts. Thus, any consideration of the communication educator in 2030 cannot deal simply with the question "Who?" It also must deal with the question "What will be the teacher in 2030?"

This redefinition of the form of the teacher should come as little surprise. We have seen only a fraction of the battles against the redefinition, even though our professional literature raised the warning flag many years ago. When some of you are called upon to take up arms against this mechanization of a humanistic endeavor, reread your history! Educated, cultured people have fought technology in many cultures and time periods. As teacher educators and communication educators, we may not yet be ready to join one writer who predicts:

> The computer, the ever-patient, neutral, not-disapproving computer, will enable each student to receive unique instruction at exactly the pace he chooses for himself . . . .[14]

Olaf Helmer, codeveloper of the Delphi method of forecasting, believes the year 2000 may bring a true symbiosis between humans and computers as a result of eliminating the laborious tasks of programming (relative automation). This will make direct communication between individuals and computers quite easy.[15]

Theodore Gordon and Robert Ament used the Delphi approach to gain information for a report, "Forecasts of Some Technological and Scientific Developments and Their Societal Consequences,"

which was produced for the Institute of the Future in Menlo Park, California. Educators should find four of their predictions provocative, as I have attempted to paraphrase them here:

1. A man-machine symbiosis will allow man to extend intelligence by direct electrochemical means.

2. Recording of direct information on the brain will be tested.

3. Inexpensive drugs will produce specific personality changes such as anxiety, euphoria, and attention.

4. The fact that most people have the latent capacity for genius will be proved.[16]

I indicated earlier that the impetus for educational reform would come from genetics and human physiology research, also. Because of our lack of knowledge; ethical, moral and religious concerns, and lack of precise equipment, scientists have been hesitant to tamper with human memory, intelligence, and other personal traits through genetic or brain modifications. Only recently have we begun to hear rational public discussions on child selection, genetic manipulations, and cloning. One is hesitant to predict what the legal implications of this research might be in view of our general ignorance in the area. However, it is this very ignorance that we educators must fight against. Even in 2030 educators will be admonished on this point: humans should not try to be God. They will need to be ready to point out that humans can never be God but this should not prevent us from attaining an ever-increasing level of perfection . . . to become more God-like beings . . . if indeed, we were created in the image of the deity. As a result of genetic transfer and direct recording of information on the brain, the teacher of

2030 could be a marvelous person and a genius in terms of our current capabilities. Furthermore, a teacher will learn to use so many technological aids through the assistance of the computer, that students in currently developed countries will find learning painless, efficient, and rewarding.

As a result of many dialogues with eight different men, some of whom were colleagues at his university, Murray summarized changes that should occur as a result of the future evolution of human beings:

> The older view of the Western world, God watching man's actions and setting standards for him, has been gradually breaking down for the last several centuries--especially as the scientific assaults on religious mythology have grown sharper. Thus the plight of modern man might also be posed as "The Case of the Missing World View." We are all desperately in need of a new world view, consistent with the facts of science but much broader and more encompassing. The new world view must provide reasonable guides to how men should behave toward one another. We must know how to rise above animals and act like gods.[17]

Indirectly, in my discussion of the changing form of the educator of 2030, I also have dealt with the function of the educator. Despite technological improvements in teaching/learning equipment and major breakthroughs in genetic transfer, direct brain recording, and electro-chemical stimulations, students in 2030 will need guidance, personal attention and evaluation, and experiences in small group and dyadic communication. Probably individual differences will occur even after specific treatments and specialized learning environments have been used. The days of classes with thirty-five students in them may be fading memories among the older teachers as they work with special

interest or problem groups of four to ten students at neighborhood centers or predesignated locations in the community. These small group sessions will permit teachers of grades 1-14 to give the individualized attention that we often hear about today, but seldom have an opportunity to provide.

Teachers will be expected to provide computers with new information on individual students who are having learning difficulties which the computers cannot diagnose. They will need to be alert to basic breakdowns that occur in their subject area specialties. Also, they will be expected to share their own enthusiasm for learning and to simplify the process of learning whenever students encounter learning difficulties.
In many ways, educators of 2030 will be exactly like the educators of 1979, just as our current educators are exactly like their counterparts of 1929. Some of the younger members of this audience will be able to verify this fact for they will be in their early retirement years as the age expectancy level moves beyond 100.

Do I foresee the continued importance of the study of human communication in 2030? It will be of greater importance than it is today. In fact, freedom of access to information, and to communicate that information, will be a primary concern of all nations in 2030. Although all nations will not have the same universal education attainments as we have in the United States, they will be well aware of the rewards of a highly educated nation. International television channels will be used by all nations to share information and to extend education.

Now, I would like to suggest a scenario for education in 2030 What <u>might</u> happen, given the conditions previously discussed?

## A Scenario: Education in 2030

In its infancy, the concept of TV teacher met with heavy resistance from teachers' professional organizations because they believed many teachers would be put out of work. This resistance collapsed after the strike of international educators for a three-day work week and higher salaries in 2010. Teachers pointed out that their average salaries were ten percent lower, worldwide, than manual laborers without college educations. Also, they proved that manual laborers worked an average of three hours a week less than they did. As a result of international mediation, classroom teachers became "extended study" supervisors in existing elementary and secondary schools and were released from their responsibilities as classroom teachers. Teacher professions were given the opportunity to invest in commercial education firms that would package programs, hire TV teachers and boards of international consultants, and sell their products on the international market. It was understood that these packages would replace the teachers in certain instructional duties but teachers would continue to earn the salaries they had been receiving before the strike.

As a result of the Agreement of 2010 school districts agreed to buy packaged programs that would be recommended by teachers in specific academic areas. The teachers agreed to plan their "extended study" sessions in the schools with their students, using the packaged programs as their primary content for the courses they taught. The extended sessions were to follow the periods that students watched the programs on television sets at home or in community or school libraries.

In reality, the Agreement of 2010 did the following:

1. Students were released from mandatory attendance at schools except for extended study sessions. They were expected to be supervised by parents at home or in public libraries by librarians, during their academic class sessions. Since every educational program could be taped by the student for replaying at a time satisfactory to him or her, each student was permitted to determine a desirable learning time as long as it occurred before the extended study session with the teacher.

2. Each student's extended study sessions were to be determined by the teacher, based upon the computerized results of the student's "punched in" responses to packaged lessons. The school district computer, linked with every home since 2001 through the telephone system, was responsible for storing all student responses. Teachers were to have access to the computer twenty-four hours a day.

3. Professional teachers' organizations were responsible for evaluating commercial education packages and for recommending packages for various levels of education. To assure continuous monitoring they were encouraged to invest sufficient amounts in commercial education firms to assure themselves voting privileges for boards of directors.

4. Teachers attained a shorter work week which was equal to a higher salary. At least one of their released days had to be a Monday or Friday to guarantee them a continuous period of non-teaching obligations. If they wished to use this time for other employment, they could do so. They could use the time to work on an advanced degree or for certification in

another academic area. The time also could be used for rest and relaxation. They agreed to use the content from their packaged program for their extended study sessions. No extended study session would contain more than twenty students and some might have as few as two students. The teacher would be responsible for letting the district computer know which students would be expected at the three-days-per-week extended study sessions at the local school.

5. The category of TV teacher was established as a permanent part of national education systems. The TV teacher did not have to meet certification requirements of classroom or extended session teachers and could be selected on the basis of a commercial education firm's perceived needs or wishes. However, commercial firms were encouraged to hire qualified teachers for positions as TV teachers. The salary and working conditions of TV teachers were to be determined by the union of media performing artists and not the international teachers organization. Any extended session teacher or prospective (intern) teacher who was hired by a commercial education firm had to become a member of the media performing artists union. Residual fees for taped materials would be given to the TV teacher as long as the program was used.

6. School districts could subscribe to only one complete program package for each course offered each year. The teachers of the course throughout the district would determine the package to be used. A reevaluation of each complete package would be made at the end of each school year and recommendations for the purchase of new packages would be made in sufficient time to allow the district to purchase it before the next year. Districts could purchase packages from more than one commercial firm for their system.

7. Commercial education firms were encouraged to hire professional educators to guarantee quality control. They also recognized that excellent teachers could be hired for a variety of tasks to make their products competitive in the world market. These new positions could be incentives for highly qualified, experienced classroom teachers to "move up" to commercial education positions. Each commercial education firm was expected to have a panel of three or more educators who could make professional judgments about the international acceptability of the taped programs.

By 2030 the Agreement of 2010 is being hailed as a milestone in education. Some of the TV teachers are looked upon by students, parents, and educators as TV stars. Most of them earn annual salaries that make the highest paid educational administrators flinch. Several of the most popular TV teachers (measured by student vote, and by numbers of programs purchased each year) are not experts in their respective teaching areas. Commercial education firms have learned that voice quality, physical appearance, interpersonal skills, and ability to memorize are the four most important qualities for a TV teacher. Therefore, talent scouts travel the world to find suitable candidates for specific teaching positions oefore their cameras.

A majority of the TV teachers teach in English since this is now recognized as the international language of education. However, they are trained to use references, analogies, and anecdotes that will be understood in all

educational institutions that are using English. Also, they are coached by international educators to avoid verbal or nonverbal messages that would be inappropriate or unacceptable in countries where the packages could be sold. These same international educators compare and contrast the TV teacher's performance with other TV educators to determine their probable marketability.

Teacher educators on college and university campuses are contacted frequently by commercial education firms, much as textbook publishers used to do in the twentieth century, to locate prospective TV teachers from intern teachers. They are encouraged to submit, with the permission of the candidate, videotapes of the intern teacher in actual teaching situations for evaluation by production managers in various commercial firms. As a result, teacher educators in 2030 teach two sets of teaching skills: those required of excellent extended study teachers, and those required of TV teachers. Major emphasis is given to interpersonal and small group relationships in the regular program; to the appearance of "knowing and caring" and "playing to the camera" in the TV teacher program. Although certification is not available for TV teachers, many teacher education programs have certificate programs for prospective TV teachers. These certificate programs are open to students in non-Education programs.

Finally, in all teacher education programs for prospective communications teachers,units on thought transference are being taught. A direct relationship between speaking skills and ease in thought transference supports the need for training in speaking.

Education in thought transference has been a part of the curricula of selected international universities, particularly those with hugh endowments, since 2020. Public institutions have avoided major programs in the area until now because of the ethical, social, political, and legal questions involved in "mind control." In the past decade, as the result of several positive contributions to the efforts of international harmony by individuals who learned thought transference as a form of human communication, this area has become a respectable academic area for practice, teaching, and research. Fortunately, teacher educators were among the first non-scientists to study the process and to involve their students in learning more about it.

By the end of 2030 comparative studies will show that the average novice teacher, completing his or her first segment of fulltime teaching, knows thirty times more cognitive material than beginning teachers knew in 1980. Since direct transfer of knowledge to the human brain did not occur before 2005, this gain is attributed to increased efficiency in "sleep learning" and packaged educational programs that now deal with "total individual immersion" in learning experiences. One intriguing factor which has not yet been investigated fully involves the discovery that college students who spent six or more years on the Moon, generally as offspring of workers in the optics and electronic crystal manufacturing industries, are evaluated consistently higher by both supervisors and students or peers in establishing and maintaining excellent interpersonal relationships. The fact that human beings may become more open, friendly, helpful, and concerned about the welfare of others as they move away from Earth for long periods of time has become a question for further investigation by human communication researchers in the coming decade.

## Footnotes

1. Story Moorefield, "Kalamazoo and High School Too," American Education 11 (April 1975), 22-27.

2. "Crystal Gazers of '39: How Near the Mark," U.S. News & World Report, April 16, 1979, 72-74.

3. For some hilarious reports of past predictions that have missed the mark completely see Arthur C. Clarke, Profiles of the Future (New York: Harper & Row, 1973).

4. Alvin Toffler (ed.), The Futurists (New York: Random House, 1972), p. 144.

5. Toffler, p. 142.

6. Harold G. Shane, "America's Educational Futures 1976-2001: The Views of 50 Distinguished World Citizens and Educators," The Futurist (October 1976), 252-257.

7. Harold A. Linstone and W. H. Clive Simmonds (eds.) Futures Research New Directions (Reading, Massachusetts: Addison-Wesley Publishing Company, 1977), 240-249.

8. Edward S. Cornish, Planting Seeds for the Future (Stamford, Connecticut: Champion International Corporation, 1979), 8-11.

9. Cornish, 11-13.

10. Joseph F. Coates, "Population and Education: How Demographic Trends Will Shape the U.S.," The Futurist (February 1978), 36.

11. Coates, 36.

12. XXVII World Assembly of Delegates, "The Teaching Profession in the World of Tomorrow: National Reports on the Theme for 1978," ERIC (ED 161 874).

13. John Kettle, Footnotes on the Future (Toronto: Methuen Publications, 1970), p. 147.

14. Kettle, p. 144.

15. Toffler, p. 156. Helmer gives his predictions for attainments that will be virtually certain, not quite so certain, and less probable by the year 2000.

16. For a more complete summary of their predictions based upon this survey, see James Olivero, "Looking at the Challenges of the Future. Providing for Tomorrow's Education Today," ERIC (ED 163 619).

17. Bruce C. Murray, Navigating the Future (New York: Harper & Row, 1975), p. 40.